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ANCIENT GREEKS ON COMPOUNDS. ARISTOTLE, DIONYSIUS THRAX, APOLLONIUS DYSCOLUS

The article presents the manner in which the phenomenon of compoundhood was analysed and interpreted in the most representative texts of Greek linguistic thought, that is in Aristotle's writings, in *Tekhne grammatike* attributed to Dionysius Thrax and in Apollonius Dyscolus' treatise *On Syntax*. Comparison of the appropriate passages from those works leads to the conclusion that each presents or discusses the phenomenon in question in the context of a different set of issues it raises. Thus, Aristotle examines compoundhood primarily from the point of view of its potential influence on the functional semantics of names, which is mainly perceived in logical terms. *Tekhne grammatike* in turn concentrates on the problem of locating compoundhood within the structure of grammatical properties of words and determining in this way its relation to other derivational and inflectional properties. Finally, Apollonius Dyscolus attempts to point out the criteria that make it possible to distinguish compoundhood from syntactic complexity, which is related to the necessity of establishing the fundamental definitional properties of the word as a linguistic unit opposed to the phrase. In this way compoundhood found its way into Greek linguistics as a phenomenon analysed from the point of view of problems it may pose in the areas of semantics, morphology and syntax.

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To Professor Marek Stachowski, on the occasion of his 60th birthday
To Aristotle, on the occasion of his 2400th birthday

The phenomenon of compounds as well as the problem of the derivation of words was present in the ancient Greek reflection on language basically since its very beginnings. Speculations about the word-formation motivations of words, which were frequently fanciful and based merely on the similarity of the phonetic shape of the compared words, were conducted initially in the context of the particular beliefs about the connections between language and extralinguistic reality, and thus also in the context of the philosophical controversy about the nature of language (i.e. whether it is natural or conventional). This, in turn, was related to the debate on the epistemological value of word-formation (derivational) analyses (i.e. the ancient etymologies) as tools which enable one to establish the essence of things that are denoted by the particular words. In the subsequent period the consideration of linguistic questions attained a certain kind of autonomy, at least in certain circles, which resulted in considerable progress in the identification of the crucial properties of language as such, as well as of words which were products of the process of composition. At the same time it is interesting to explore the differences which may be observed in the way the *composita* were analysed and interpreted in the particular texts which constitute the ancient Greek linguistic tradition. In order to illustrate these differences we will first make reference to the appropriate passages in Aristotle's works, then to the *Art of Grammar* which is ascribed to Dionysius Thrax, and finally to the treatise *On Syntax* by Apollonius Dyscolus.

Although Aristotle did not belong to the group of ancient grammarians and he did not devote any separate treatise to language, he did engage in linguistic questions in many of his writings whenever his subject called for this, and his influence upon the subsequent development of Greek (and European) linguistics was great. The problems concerning compounds were referred to by the Philosopher in the *Poetics* and in the *Hermeneutics*. In the first of these treatises such a reference is made first in Chapter 20 when the author defines the *onoma* ('noun') as one of the components of language. We read there the following words:

Aristotelis *Poetica*, 1457a10–14:

Ὄνομα δὲ ἐστὶ φωνὴ συνθετὴ σημαντικὴ ἄνευ χρόνου, ἥς μέρος οὐδὲν ἐστὶ καθ' αὐτὸ σημαντικόν· ἐν γὰρ τοῖς διπλοῖς οὐ χρώμεθα ὥς καὶ αὐτὸ καθ' αὐτὸ σημαῖνον, οἷον ἐν τῷ Θεόδωρος τὸ δωρος οὐ σημαίνει.

A noun is a compound, significant, nontemporal sound, no part of which is independently significant; for in double nouns we do not employ any part as independently significant: e.g. in *Theodorus* the *-dorus* part has no meaning.¹

As we can see, one of the defining properties of the noun, apart from semanticity and the lack of the designation of time,² is its semantic indivisibility. This property is so special or unobvious that its validity is supported by additional argumentation which refers to the asemanticity of the part of the noun referred to as *onoma diploun* (ὄνομα διπλοῦν). The exemplification that is alluded to attests that this *onoma diploun* is a two-part compound, i. e. *Theodoros* (Θεόδωρος), in which the component *-doros* is claimed not to have any meaning (οὐ σημαίνει). It seems that a kind of justification of this statement results from the fact that the aforementioned noun (*Theodoros*) is an anthroponym, a conventional male name whose purpose is merely to identify the people who bear it. However, due to the emphasised asemanticity of the parts of all nouns as such we may conclude that the basis for the distinguishing of compound nouns (*onomata dipla*) must be connected with the semanticity of their parts which realises itself outside those nouns, i.e. when the parts function as separate words (*doron* – ‘a gift’).³

At the beginning of Chapter 21 Aristotle returns to the description of nouns by providing a more comprehensive typology:

Aristotelis *Poetica*, 1457a30–36:

‘Ὄνόματος δὲ εἶδη τὸ μὲν ἀπλοῦν, ἀπλοῦν δὲ λέγω ὃ μὴ ἐκ σημαίνοντων σύγκειται, οἷον γῆ, τὸ δὲ διπλοῦν· τοῦτου δὲ τὸ μὲν ἐκ σημαίνοντος καὶ ἀσήμου, πλὴν οὐκ ἐν τῷ ὀνόματι σημαίνοντος καὶ ἀσήμου, τὸ δὲ ἐκ σημαίνοντων σύγκειται. Εἴη δ’ ἂν καὶ τριπλοῦν καὶ τετραπλοῦν ὄνομα καὶ πολλαπλοῦν, οἷον τὰ πολλὰ τῶν Μασσαλιωτῶν, Ἑρμοκαϊκόξανθος.

Nouns can be classed as ‘single’ (by which I mean those not comprising significant parts, e.g. *gē* [‘earth’]) and ‘double’. The latter can be subdivided into those formed from both significant and nonsignificant parts (though this is not their function

- 1 All passages from the *Poetics* are quoted according to the edition and translation by St. Halliwell in: Henderson (1995).
- 2 This lack of (co-)designation of time constitutes a property which distinguishes in a definitional manner the *onoma* (the noun) from the *rhema* (the verb); cf. 1457a14–15: *ῥῆμα δὲ φωνῇ συνθετὴ σημαντικὴ μετὰ χρόνου, ἧς οὐδὲν μέρος σημαίνει καθ’ αὐτό, ὥσπερ καὶ ἐπὶ τῶν ὀνομάτων* – “A verb is a compound, significant sound with a temporal force, but no part of which is independently significant (as with nouns)”. Let us add, that the expression “compound sound” (*φωνῇ συνθετῇ*), used also in reference to *onoma*, means here that the verb (and the noun) is (as a sound) composed of phones (*στοιχεῖα*) and syllables (*συλλαβαί*).
- 3 For a thorough examination of the linguistic content of the 20th chapter of the *Poetics* see Swiggers, Wouters (2002).

within the noun), and those comprising only significant parts. One could further distinguish 'triple', 'quadruple' and 'polysyllabic' nouns, e.g. most Massaliote terms: *Hermocaïcoxanthus*.⁴

Thus, the *onoma diploun*, which was distinguished in the preceding passage, is confronted here with the *onoma haploun* (ὄνομα ἀπλοῦν). Moreover, the Stagirite also distinguishes the *onoma triploun*, *tetraploun* and *pollaploun*. The description of the *onoma diploun*, which is included in the cited passage, enables us to identify it – similarly as in the passage quoted earlier – with a compound founded upon two word-formation bases, but perhaps also with a simple suffixal derivative, if we should identify its component which was referred to as *asemos* (ἄσημος – 'nonsignificant') with a suffix. Thereby the term *onoma haploun* should be understood as a non-compound and non-derivative noun, since this understanding is in keeping with the description ("[nouns] not comprising significant parts") and the exemplification (*gē* – 'earth') given in the passage. We may also assume that the nouns which are referred to with the terms (*onoma*) *triploun*, *tetraploun*, *pollaploun* are compound nouns which are characterised by the presence of an appropriately greater number of significant components (or significant components and a non-significant component). Thus, in the typology presented by Aristotle two properties attract our attention. The first one has to do with the lack of distinction (at least of a terminological distinction) between composition and derivation, a lack which is manifested by the fact that the class *onoma diploun* includes both nouns which consist of two significant elements, i.e. two-part compounds, as well as nouns which consist of a significant and a non-significant element, and therefore most probably suffixal derivatives. The second peculiar property has to do with the reservation (formulated in both passages) that within the noun which constitutes an *onoma diploun* neither of its parts is characterised by meaning. Another striking fact is that the Philosopher makes no mention of composition as a word-formation strategy in his discussion of the *rhema* ('the verb') as another component of language (1457a14–18).

- 4 This word is formed from the names of three rivers: Hermos, Kaïkos and Xanthos (= Scamander), which flow near Phocaea in Asia Minor, where the colonists who established Massalia (Marseilles) originated from. This word probably functioned as an epithet of Zeus which was conferred to him in Massalia by the Phocaean colonists, so that it would remind them about their relationship with their former fatherland.

The problem of the semanticity of compounds was also discussed by Aristotle in the first chapters of the *Hermeneutics* (*Περὶ ἑρμηνείας*), i.e. in one of the six treatises comprising the rudiments of the logic and methodology of the Philosopher's research which were later brought together in a collection known as the *Organon*. In the *Hermeneutics* the subject of discussion is language as the tool for expressing thoughts (*ἑρμηνεία* 'expression, utterance'); therefore, before the Philosopher begins to discuss linguistically expressed and logically verifiable statements about reality, he describes their components, i.e. individual words of which he distinguishes two basic classes: *onomata* ('nouns') and *rhēmata* ('verbs'). However, composition, being the object of a special analysis, is only brought up in the course of the description of the *onoma*:

Aristotelis *Hermeneutica* 16a19–26:⁵

Ὄνομα μὲν οὖν ἐστὶ φωνὴ σημαντικὴ κατὰ συνθήκην ἄνευ χρόνου, ἥς μὴδὲν μέρος ἐστὶ σημαντικὸν κεχωρισμένον· ἐν γὰρ τῷ Κάλλιππος τό ἵππος οὐδὲν αὐτὸ καθ' αὐτὸ σημαίνει, ὥσπερ ἐν τῷ λόγῳ τῷ καλὸς ἵππος. Οὐ μὴν οὐδ' ὥσπερ ἐν τοῖς ἀπλοῖς ὀνόμασιν, οὕτως ἔχει καὶ ἐν τοῖς πεπλεγμένοις· ἐν ἐκείνοις μὲν γὰρ οὐδαμῶς τὸ μέρος σημαντικόν, ἐν δὲ τούτοις βούλεται μὲν, ἀλλ' οὐδενὸς κεχωρισμένον, οἷον ἐν τῷ ἐπακτροκέλης τὸ κελῆς.

The noun is a sound which has meaning which is established by way of convention, without reference to time, a sound whose neither part has meaning in separation from the whole. For in the noun *Kallippos* the element *-(h)ippos* in itself does not mean anything, as it has meaning in the phrase *kalos hippos* ['a beautiful horse']. However, it is not so that if a thing manifests itself in simple nouns, it does so likewise in complex nouns; for in the former ones a part has no meaning at all, whereas in the latter ones a part has a meaning, but not in separation from the whole, as e.g. the element *-keles* in the name *epaktrokeles*.

In the passage quoted above, similarly as in the case of the definition of the *onoma* from the *Poetics* which was interpreted above, after the conventional nature of the semantic function of a noun and the lack of reference to time was enunciated, a specific declaration concerning the asemanticity of the parts of a noun is made again: *φωνή [...] ἥς μὴδὲν μέρος ἐστὶ σημαντικὸν κεχωρισμένον* "a sound whose neither part has meaning in separation from the whole". And in a similar manner the validity of this statement is confirmed by reference to an example of a compound anthroponym *Kallippos* (*Κάλλιππος*), in which the component *-(h)ippos* is said not

5 The passage is quoted according to Montanari (1984: 111).

to mean anything in itself, in contradistinction to an identical form (*hippos*) in the phrase *kalos hippos* (καλὸς ἵππος 'a beautiful horse'), which, as a separate word, is characterised by meaning. What follows is, however, somewhat surprising: here the Philosopher claims that there yet exists a difference between simple nouns (*onomata hapla*, ὀνόματα ἀπλᾶ) and complex nouns (*onomata peplegmena*, ὀνόματα πεπλεγμένα), for in the former ones a part has no meaning at all (οὐδαμῶς τὸ μέρος σημαντικόν), while in the latter ones it has a certain meaning (βούλεται), but not in separation from the whole (ἀλλ' οὐδενὸς κεχωρισμένον). And as an example of such a complex noun (*onoma peplegmenon*) the Philosopher provides the word *epaktrokeles* (ἐπακτροκέλης) in which the element *-keles* (κέλης) is supposed to have a certain meaning, but not in separation from the whole. At the same time the context of this statement implies that the aforementioned anthroponym *Kallippos* constitutes an *onoma haploun*, which is particularly curious, especially due to the fact that a noun with an identical compound structure, i.e. *Theodoros*, was classified as an *onoma diploun* in the passage 1457a10–14 of the *Poetics*, which was quoted at the beginning. Therefore, what is the difference between the *onoma diploun* in the *Poetics* (*Theodoros*) and the *onoma peplegmenon* in the *Hermeneutics* (*epaktrokeles*)? And in a similar manner, what is the difference between the *onoma haploun* (*Kallippos*) and the *onoma peplegmenon* (*epaktrokeles*) in the above cited passage of *Hermeneutics*? It seems that in order to understand the argument in the *Hermeneutics* and to establish the criterion which lies at the heart of the opposition *onoma haploun* : *onoma peplegmenon* it is crucial to comprehend the difference which Aristotle perceived in the way the signifying function of both *exempla* in the aforementioned passage is realised.

While the noun *Kallippos* does not present any special interpretative difficulties as far as the meaning of its constituent bases and its function as a proper name, the lexeme *epaktrokeles* does pose certain problems in this respect. Namely, this word is a noun composed of *epaktris* and *keles*. All three lexemes are very peculiar maritime terms whose meaning is difficult to establish today. We know that these names refer to three different types of ships, although we do not know if the latter differed in terms of their size, shape, equipment, purpose or some (other) general nautical parameters. Therefore, the relationship between the terms *epaktrokeles* and *keles*⁶ remains difficult to establish.⁷ Nevertheless, the fact that Aristotle referred to

6 And likewise *epaktrokeles* and *epaktris*.

7 Apart from the passage under discussion the term *epaktrokeles* appears in the entire corpus of preserved Greek literature only once, i.e. in the par. 191 of the speech *Against*

this peculiar technical term out of many composite formations which constitute the resources of the Greek lexicon suggests that this word must correspond in some peculiar way to the criteria that the Philosopher established for the nouns to which he ascribed the status of *onomata peplegmena*. E. Montanari (1988: 123–126) may be on the right track when he likens the semantic and morphological structure of the Greek *epaktrokeles* to that of the Italian term *brigantinogoletta*, which is a compound consisting of *brigantino* and *goletta*. *Brigantino* is the name of a two-masted ship which has square-rigged sails on both masts, i.e. sails that are carried by a horizontal beam (yard) attached to the mast halfway through its length. *Goletta* is also the name of a two-masted vessel, although the latter features gaffsails on both masts, i.e. the sails are suspended on an obliquely-placed (in reference to the mast), movable pole (gaff) attached to the mast on one end. Whereas *brigantinogoletta* is a term which denotes a two-masted vessel which has square-rigged sails on one mast and gaffsails on the other.⁸ And therefore *-goletta*, as the component of the name *brigantinogoletta*, is characterised by a certain meaning, for it provides the information that one of the masts of this two-masted vessel features gaffsails. This meaning is realised only within this name, whereas it disappears in separation from this name, for *goletta* as an independent word denotes a ship with two gaff-rigged masts. We may assume that, *mutatis mutandis*, an analogous function could have been performed by the element *-keles* in the compound name *epaktrokeles*. Therefore the meaning which is mentioned by Aristotle in his argument is not the abstract, lexical semanticity of a part of a (composite) word, but its semanticity within that word. So, when the Philosopher says that this part (μέρος) has no meaning in separation from the whole (οὐδενὸς κεχωρισμένον), the latter phrase should not be understood as equipollent to οὐκ ἐν τῷ ὀνόματι, but as *κεχωρισμένον ἐν τῷ ὀνόματι*, for apart from the word *epaktrokeles*, *keles* carries meaning as a name in itself, although a different one than *-keles* in the name *epaktrokeles*. And it is the latter meaning that disappears, if this element is separated from the name whose part it constitutes. Therefore, it seems that by referring to this example

Timarchos by Aeschines, from which we can learn nothing more than that the ship referred to with this term was used by pirates; cf.: ... αἱ προπετεῖς τοῦ σώματος ἡδοναὶ καὶ τὸ μηδὲν ἱκανὸν ἡγεῖσθαι, ταῦτα πληροὶ τὰ ληστῆρια, ταῦτ' εἰς τὸν ἐπακτροκέλητα ἐμβιβάζει, ταῦτά ἐστιν ἐκάστω Πολυνή, ταῦτα παρακελεύεται σφάττειν τοὺς πολίτας, ὑπηρετεῖν τοῖς τυράννοις, συγκαταλύειν τὸν δῆμον.

- 8 In Polish the following names correspond to these terms (respectively): *szkuner* (Eng. schooner), *bryg* (Eng. brig) and *szkunerbryg* (Eng. obs. schooner brig).

the Philosopher desired to emphasise that even if a part of a composite word has a certain meaning, then this meaning is completely determined by the meaning of the remaining components and the word as a whole. Consequently, the meaning of a part of a word constitutes only a dependent element of the meaning of that word as a whole and its existence is justified exclusively within the context of this word. Thereby Aristotle could demonstrate that nouns of this kind, i.e. *onomata peplegmena*, also do not go beyond the general definition of the noun, which states that no part of it has meaning in separation from the whole (*φωνή [...] ἥς μηδὲν μέρος ἐστὶ σημαντικὸν κεχωρισμένον*).⁹

As we summarise all statements of the Stagirite about compound nouns, expressed both in the *Poetics* and in *Hermeneutics*, and as we attempt to answer the questions which were asked before, we should state that each of these two works postulates a different classification, based on different criteria, which is also manifested in a slightly different terminology. In the *Poetics* the opposition *onoma haploun* : *onoma diploun* (*triploun*, *tetraploun*, *pollaploun*) is based exclusively on the number of elements in a given word such that are characterised by meaning outside the context of the given word, i.e. as separate words. We are told that within a given word none of these elements is “significant in itself” (*αὐτὸ καθ’ αὐτὸ σημαῖνον*); that is to say, it does not have autonomous meaning. As we can see, this typology is purely morphological in nature and its criterion is associated with the number of word-formation bases found in a given word (or the lack of such bases). On the other hand, in the *Hermeneutics* the opposition *onoma haploun* : *onoma peplegmenon* is based not on the number of independently meaningful elements in a word, but on the way in which they function within this word. And thus we are told that within the *onoma haploun* the elements do not mean anything in themselves (*οὐδὲν αὐτὸ καθ’ αὐτὸ σημαίνει*), they do not have any meaning at all (*οὐδαμῶς τὸ μέρος σημαντικόν*), whereas within the *onoma peplegmenon* they have a certain meaning (*βούλεται*) but not in separation from the whole word (*ἀλλ’ οὐδενὸς κεχωρισμένον*). Thus, this division does not refer to morphological simplicity or compoundhood but to the semantic simplicity/complexity, which is functional in nature. Within the framework of this typology the class *onomata hapla* involves both non-compound (i.e. simple) nouns (which also constitute *onomata hapla* according to the classification introduced in the *Poetics*), and those compound nouns (i.e. *onomata dipla*, according to the classification in the *Poetics*)

9 The analysed passage is also discussed in Wolanin (1995: 257–260), together with yet another one (16b29–33) in which Aristotle refers to a speciously compound noun (*μῦς*).

whose components do not determine the semantic function of a given noun as a whole, i.e. such as *Kallippos*,¹⁰ which is a conventional anthroponym identifying specific people regardless of whether there is any relationship between those people and (beautiful) horses or not. Whereas *onomata peplegmena* are those compound nouns (i.e. *onomata dipla*, according to the morphological classification of the *Poetics*) whose components determine (to a certain extent) the meaning of a given noun as a whole by contributing a certain amount of information about the specific properties of its referent, that is nouns such as *epaktrokeles*, with the reservation that this information is realised only within this noun and not in separation from this noun, because in the latter context, i.e. if the components function as separate words, their semantics (informative value) changes. Thus the *onoma haploun* which is confronted in the *Poetics* with the *onoma diploun* (*triploun*, *tetraploun*), and the *onoma haploun* which is confronted in the *Hermeneutics* with the *onoma peplegmenon*, are terms which, although formally identical, express two distinct notions, i.e. the former refers to the noun which is non-composite morphologically, and the latter refers to the noun which is non-complex semantically. And in a similar manner the *onoma diploun* in the *Poetics* and the *onoma peplegmenon* in the *Hermeneutics* are not two editorial variants of the same term, but are two terms whose content is different. The first of these terms denotes a morphologically composite noun (i.e. a compound) and the second term a noun which is semantically complex.

It is also due to the above indicated difference in the non-simplicity of nouns that in both texts, i.e. in the *Poetics* and in the *Hermeneutics*, the Stagirite uses the terms which refer to the (a)semanticity of the parts of nouns in a slightly different manner. In the *Poetics* he introduces no distinction as far as the intralexical semanticity of the parts of compound nouns (*dipla*) is concerned, therefore the parts of both these nouns and the simple nouns (*hapla*) were referred to as asemaantic *αὐτὰ καθ' αὐτά*, i.e. 'by themselves' (1457a10–14). Whereas in the *Hermeneutics* such a distinction was introduced, therefore in the general definition of the noun as such, propounded in this text, these parts were referred to as asemaantic *κεχωρισμένα*, i.e. in separation from the context constituted by the meaning of the noun as a whole. Consequently, this definition includes both semantically simple nouns (*hapla*) such as *Kallippos*, whose parts do not have meaning not only *κεχωρισμένα*, but also *αὐτὰ καθ' αὐτά*, as well as semantically complex nouns (*peplegmena*), as for example *epaktrokeles*, whose parts are not

10 And Theodoros likewise.

asemantic αὐτὰ καθ' αὐτά (cf.: ἐν δὲ τούτοις [τὸ μέρος] βούλεται), but only as κεχωρισμένα (cf.: ἀλλ' οὐδενὸς κεχωρισμένον). It also seems understandable that it is in the *Hermeneutics* that Aristotle presented an in-depth interpretation of the semantics of compounds. As we have already mentioned, this treatise belongs among Aristotle's writings on logic and it refers to the linguistic means of expressing thoughts, and especially propositions. It was therefore necessary to establish at the beginning the logical status of the thing which is expressed by an individual word (noun). And as far as the Philosopher is concerned, his answer is that: firstly, regardless of the compoundhood of the noun it always expresses only one notion which may become an object of logical operations (predication). And therefore such expressions as e.g. *Kallippos trekhei* ('Kallippos runs') or *epaktrokeles plei* ('an epaktrokeles sails') constitute propositions, in which subjects of predication are constituted by single notions, i.e. a man known as *Kallippos* and a vessel known as *epaktrokeles*, respectively. Thus neither the horse nor the vessel known as *keles* constitute any components of these propositions. Secondly, the consequences of the compoundhood of the noun for its denotational value may be twofold, i.e. it may be either irrelevant in this regard, as in the case of the name *Kallippos* (in which the component *-(h)ippos* does not determine people for whom this name is appropriate in any way, due to the complete conventionalisation of this name¹¹), or it may influence the denotational value of the noun, as in the case of the name *epaktrokeles* (in which the word-formative component *-keles* co-decides about the adequacy of this noun in reference to the specific class of vessels). Thereby the Philosopher indicated the necessity to distinguish (or even to separate) the morphological plane from the plane of functional (logical) semantics, or, to be more precise, he indicated that the morphological (i.e. word-formation) structure of a noun and the way its semantics functions on the plane of logic are relatively independent, or at least not completely congruent. We should emphasise, however, that while the descriptions of nouns presented in the *Poetics* and in the *Hermeneutics* are different, they are not contradictory, and the element they share is the strongly emphasised lack of the semantic autonomy of the morphological components of a compound. This lack is reflected either in the complete asemanticity of such a component within a name (*-doros* in *Theodoros*, *-(h)ippos* in *Kallippos*), or in the fact that its semanticity is relative, manifested as a factor identifying specific properties of the referent of the noun as a whole and not as an exponent of a separate referent (*-keles* in *epaktrokeles*).

11 The same could have been said about the name *Theodoros* and its component *-doros*.

In the grammatical tradition the problem of compounds appears in a completely different context. In the treatise entitled *The Art of Grammar* (*Tekhne grammatike*, *Τέχνη γραμματικὴ*), which is attributed to Dionysius Thrax (170–90 BC)¹² and which contains an exposition of the Alexandrian science of the morphology of the word, the questions concerning words formed by means of composition are discussed in chapters dealing with the particular classes of words (parts of speech). In these chapters appropriate grammatical properties or accidents (*παρεπόμενα*, *parepomena*) are ascribed to specific classes of words. These properties include both inflexional and word-formative categories. The latter ones are discussed in chapters treating the *onoma* ('a noun'), *rhema* ('a verb') and *antonymia* ('a pronoun'). And thus in the chapter concerning the *onoma* we may read the following words:

Dionysii Thraxis *Ars grammatica* 24, 6–7:¹³

Παρέπεται δὲ τῷ ὀνόματι πέντε· γέννη, εἶδη, σχήματα, ἀριθμοί, πτώσεις.

Five (properties) accompany a noun: genera, forms, structures, numbers, cases.

So, beside the inflexional categories of gender, number and case, also two word-formation categories were classified as accidents (*parepomena*) which accompany the noun, i.e. the *eidos* (εἶδος) 'form' and *skhema* (σχῆμα) 'structure'. The former refers to morphological derivability/non-derivability and is based on the opposition *eidos prototypon* 'a basic (= non-derived) form' (*gē* – 'earth'): *eidos paragon* 'a derived form' (*gaieios* – 'earthly'),¹⁴ whereas it is the *skhema* which refers to morphological compoundhood or lack thereof. The latter property is expressed in the following way:

Dionysii Thraxis *Ars grammatica* 29, 5–7:

Σχήματα δὲ ὀνομάτων ἐστὶ τρία· ἀπλοῦν, σύνθετον, παρασύνθετον· ἀπλοῦν μὲν οἶον Μέμνων, σύνθετον δὲ οἶον Ἀγαμέμνων, παρασύνθετον δὲ οἶον Ἀγαμεμνο-νίδης, Φιλίππιδης.

12 The attribution of this treatise was and continues to be a source of controversy, although the majority of researchers accept the opinion that its content reflects the grammatical knowledge whose bulk was formed in the 2nd–1st century BC in the milieu of Alexandrian philologists and whose particular points were modified and enhanced by the subsequent generations of Greek grammarians over the course of centuries. On the *status quaestionis* see Law, Sluiter (1995).

13 All quotes are provided according to Uhlig (1883).

14 Cf. 25, 3–5.

There are three structures of a noun: simple, compound and the one which is derived from the compound; the simple structure is e.g. *Memnon*, the compound one is e.g. *Agamemnon*, and the structure which is derived from the compound one is e.g. *Agamemnonides*, *Philippides*.

According to this description, the category of *skhema* ('structure') is based on the tri-partite opposition: *skhema haploun* ('the simple structure') : *skhema suntheton* ('the compound structure') : *skhema parasuntheton* ('the structure derived from the compound one'), and at the same time it constitutes a criterion for distinguishing three types of nouns: a simple noun, a compound, and a derivative of a compound. Further on, four more kinds of compounds, called *suntheton diaforai* (συνθέτων διαφοραί), are distinguished. These are described as follows:

Dionysii Thracis *Ars grammatica* 30, 1-4:

Τῶν δὲ συνθέτων διαφοραί εἰσι τέσσαρες. ἃ μὲν γὰρ αὐτῶν εἰσιν ἐκ δύο τελείων, ὡς Χειρίσσοφος, ἃ δὲ ἐκ δύο ἀπολείποντων, ὡς Σοφοκλῆς, ἃ δὲ ἐξ ἀπολείποντος καὶ τελείου, ὡς Φιλόδημος, ἃ δὲ ἐκ τελείου καὶ ἀπολείποντος, ὡς Περικλῆς.

There are four kinds of compound nouns; some of them consist of two whole [words] as e.g. *Kheirisophos*, others consist of two abbreviated words, such as e.g. *Sophokles*, others consist of one abbreviated and one whole word, such as e.g. *Philodemos*, still other consist of a whole word and an abbreviated word, such as e.g. *Perikles*.

As we can see, these *suntheton diaforai* are four classes of nominal compounds, distinguished on the basis of the form of the lexical elements which correspond to its word-formation bases.¹⁵ It is peculiar that both in this passage as in the one quoted before the whole exemplificatory material includes exclusively proper names (anthroponyms) with a clear morphological structure, and the typology is based solely on the formal factor of a morphological nature, while the semantic aspect is completely omitted.

The description of the *skhema* in reference to the verb (*rhema*) is presented in a similar manner:

Dionysii Thracis *Ars grammatica* 50, 3 - 51, 1:

Σχήματα τρία, ἀπλοῦν, σύνθετον, παρασύνθετον· ἀπλοῦν μὲν οἶον φρονῶ, σύνθετον δὲ οἶον καταφρονῶ, παρασύνθετον δὲ οἶον ἀντιγониζω, φιλιππιζω.

15 However, in the case of the name *Perikles* we are actually dealing with a prefixal form, in which the prefix is formally identical with the preposition *peri* 'round about, around'.

There are three structures: a simple one, a compound one and the one which is derived from the compound one; the simple one is e.g. *phrono*, the compound one is e.g. *kataphrono*, and the one derived from the compound one is e.g. *antigonidzo*, *philippidzo*.

In this case, as an example of a compound the author cites the prefixal formation *kataphrono* (καταφρονῶ) 'I look down upon, I think slightly of', in which an agglutinated preposition *kata* (κατά) 'downwards, under' acts as the prefix. The examples of derivatives of compounds the author provides, i.e. *antigonidzo* (ἀντιγονίζω) and *philippidzo* (φιλιππίζω), are denominal formations which are based on compound proper names (anthroponyms) *Antigonos* (Ἀντίγονος) and *Philippos* (Φίλιππος) and which mean the act of supporting (or being the supporter of) people who bear these names. In contradistinction to the *onoma*, no kinds of verbal compounds, i.e. *suntheton diaforai* (συνθέτων διαφοραί), are distinguished.

The description of the *skhema* as a property of pronouns (*antonumiai*) is limited to a bipartite opposition: *skhema haploun* ('a simple structure') : *skhema suntheton* ('a compound structure') and to this very opposition the difference between the personal pronouns and the reflexive pronouns is reduced:

Dionysii Thracis *Ars grammatica* 68, 1–2:

Σχήματα δύο, ἀπλοῦν, σύνθετον· ἀπλοῦν μὲν οἶον ἐμοῦ, σοῦ, οὐ, σύνθετον δὲ ἐμαυτοῦ, σαυτοῦ, αὐτοῦ.

There are two structures: a simple and a compound one; the simple one is e.g. *emou*, *sou*, *hou*, and the compound one is e.g. *emautou*, *sautou*, *hautou*.

We also encounter the division of words into simple ones (*hapla*) and compound ones (*suntheta*) in the chapter devoted to the adverb (*epirrHEMA*), although no reference is made to the notion of *skhema*. In any case, no *parepomena* are mentioned there, though right after a brief definition of the adverb we read the following words:

Dionysii Thracis *Ars grammatica* 73, 1–2:

Τῶν δὲ ἐπιρρημάτων τὰ μὲν ἐστὶ ἀπλᾶ, τὰ δὲ σύνθετα· ἀπλᾶ μὲν ὥς πάλαι, σύνθετα δὲ ὥς πρόπαλαι.

Among adverbs there are those which are simple, and others which are compound; the simple one is e.g. *palai* ('long ago'), the compound one is e.g. *propalai* ('very long ago').

So, it is easy to see that this description of adverbs focuses just on their structure (*skhema*), testimony of which is furnished both by the terminology which is used and the examples which are provided.

As far as the description of words belonging to other classes (other parts of speech) is concerned, there is no information concerning their possible compoundhood. What is peculiar in the light of this is that in the chapter devoted to conjunctions (*sundesmoi*), the examples that are provided to illustrate their various semantic types (conjunctive, disjunctive, purpose-related, explicative etc.) are characterised by compoundhood which is indeed striking, as is the case of causal conjunctions (92, 2–3), where the author enumerates *epei*, *epei^{er}*, *epeide*, *epeide^{er}* (ἐπεί, ἐπείπερ, ἐπειδή, ἐπειδήπερ) in one go but he fails to mention their *skhema*.

In conclusion we should state that in the treatise under discussion compoundhood of words is presented in the context of a general description of the grammatical features of the particular parts of speech. However, this presentation is spoilt by the lack of a conceptual and terminological distinction between word-formation and inflexion. This is because compoundhood is discussed in the context of one of the accidents (*parepomena*) of specific classes of words, i.e. *skhema*, whose status is not distinguished from the status of the *parepomena* comprising inflexional categories. The essence of the *skhema* actually has to do with the variance *simplex* (*haploun*) – *compositum* (*suntheton*) – *decompositum* (*parasuntheton*), and the manner and scope of the description of compounds themselves (*suntheta*) is limited to a division of nouns into kinds (*diaforai*) according to the schematically-conceived form in which word-formation bases are represented in them (a whole word vs. an abbreviated word). Consequently, the constituents of compounds are not appropriately interpreted as regards either their formal (grammatical) features or their semantic value. However, bearing in mind the historical context of this text, it seems that the general classification of facts related to compoundhood, which is presented in this text, as well as the attempt at finding an appropriate place for this phenomenon in the general description of the grammatical system of the language, deserve credit.

In the *Tekhne grammatike* compoundhood is presented as one of the systemic properties of words, constituting, together with inflexional properties, their general morphological characteristics, whereas in the four-volume treatise *On Syntax* (*Peri tes suntaxeos*, *Περὶ τῆς συντάξεως*) by Apollonius Dyscolus (2nd century AD) this phenomenon is presented mainly through the perspective of the definitional features of compounds and the criteria which enable one to distinguish compounds from syntagms, and therefore in the context of the demarcation between morphology and syntax.

In reference to compound words Apollonius generally uses the term *sunthesis* (σύνθεσις) or (*onoma*) *suntheton* (ὄνομα) σύνθετον), as well as occasionally *sun-taxis* (συντάξις). In the second book (par. 161) he writes that the peculiar feature of each compound is the fact that its composite nature is confirmed both in the form, i.e. *phone* (φωνή), as well as in the meaning, i.e. *deloumenon* (δηλουμένον). The following words are to be found in the relevant passage:¹⁶

Apollonii Dyscoli *De constructione* 2, 161:

Ἐν γὰρ τῷ μισογύνῃ καὶ τὸ μισεῖν ἔγκειται καὶ ἡ γυνή, καὶ ἐν τῷ φιλόπονος τὸ φιλεῖν καὶ ὁ πόνος. οὐ γὰρ τὰ ἐν μιᾷ λέξει ἀπλῇ πλείονα σημαίνοντα σύνθετα, ὥς ἐπὶ τοῦ τοξότης, σκυτεὺς, κἄν ἐνέργειαν σημαίνῃ τὴν τοῦ τέμνειν, εἰ μὴ καὶ τὴν φωνὴν προσλάβοι ἐν τῷ σκυτοτόμος. Ἐντεῦθεν τὸ Ἀρίσταρχος καὶ τὰ τοῦτω ὅμοια κύρια ὄντα πρὸς ἐνίων οὐ κατηριθμεῖτο εἰς τὰ σύνθετα, ὅτι μὴ καὶ τοῖς δηλουμένοις ἐκέχρητο. Ἄλλ' ἐπὶ γε τούτων ἐδείκνυτο ὥς ἡ πρώτη σύνθεσις ἐπεκράτει, καθὼς ἔχει τὸ ἀρίσταρχος Ζεὺς παρὰ τοῖς περὶ Βακχυλίδην, καὶ οὐχ ἡ ἐξ ὑστέρου γενομένη συμβολικὴ μετάθεσις.

For instance, in *misogunes* ('woman-hater') it is clear that both *misein* ('hate') and *gunē* ('woman') are present both in form and in meaning, and in *philoponos* ('work-loving') both *philein* ('love') and *ponos* ('work'). And even if two or more semantic parts are present in one simple word, it is not [necessarily] a compound – e.g. *toxotes* ('bowman') or *skuteus* ('shoemaker', 'leather-worker'); although the notion of *temnein* ('cutting' of leather) is present [in *skuteus*], it's not a compound unless 'cut' is present in form, as well, as in *skutotomos*¹⁷ ('leather-cutter', 'shoemaker'). Hence *Aristarchos* and similar words which are proper names are not counted as compounds by some, because they don't use the meaning of the parts to make a meaningful whole.¹⁸ But on this point we tried to show [in a lost work] that the original composition prevails, as in Bacchylides 12, 58, *aristarchos Zeus* ('Zeus ruler of the best' or 'best of rulers') [in determining that it is a compound], and not the later transfer by convention to use as a proper name.

As we can see, for Apollonius the criterion which conditions the attribution of the status of compound to a word has to do with co-occurrence of specific formal and semantic properties. On the one hand, the presence of two word-formation bases, identifiable in the sound layer of the word, and on the other hand, the complex

16 All quotations from Apollonius' work are provided according to the edition by Uhlig (1910); translations according to Householder (1981).

17 A compound made from *σκύτος* 'leather' and *τόμος* 'cut'.

18 This remark for sure reflects Aristotle's view presented above.

semantics of the word, which results from an interplay of the meanings of these bases, turn out to be indispensable. This necessary symmetry of formal and semantic factors enables the author to eliminate the word *skuteus* from the class of compounds, despite the fact that he ascribes to it the presence of “more semantic parts”. This ascription is of course a result of an (erroneous) identification of the designatory (referential) meaning of this word with the word-formative (structural, etymological) meaning of the synonymous word *skutotomos*. On the other hand, this symmetry does not force the author to question the word-formative composite nature of the anthroponym *Aristarchos*, despite the fact that as a conventional proper name it does not manifest a composite designatory meaning, for in this case our grammarian may recognise its “composite original meaning” as the decisive factor, i.e. the word-formative (etymological) meaning which this word manifested as a common adjective. In this respect the grammarian could have also made additional reference to this use of the word as an attributive determiner of Zeus in the poetry of the archaic poet Bacchylides, who lived at the turn of the 5th century.

However, in his discussion of compounds Apollonius focuses on the question of how to distinguish compounds, i.e. one-word synthetic structures (*suntheseis*), from two-word analytical structures, i.e. parathetical ones (*paratheseis*), to use his terminology. The matter is not as obvious as it seems, for on the one hand, in the antiquity texts were usually written *in continuo*, i.e. without spaces between words (and without accent marks), and on the other hand, from early on the Greeks had an intuitive understanding of the concept of word, and this an idea rather than a term, since as regards terms, there were several in use, e.g. *ὄνομα*, *λέξις*, *μέρος λόγου* and the like. Therefore, grammarians faced the task of defining this concept theoretically in grammatical terms, even more so because in this case there was no recourse to orthography.

The criteria which according to Apollonius help distinguish compounds (i.e. synthetic, one-word constructions) from analytical structures (i.e. two-word, parathetical constructions) are not uniform. Generally speaking, in this regard it is possible to point out criteria of prosodic, morphological, morphosyntactic and morphosemantic nature.

As far as the prosodic criteria are concerned, one of them consists in the presence of only one accent within a given structure. The appropriate passage in Apollonius reads as follows:

Apollonii Dyscoli *De constructione* 4, 1–3:

Τὰ πλεῖστα τῶν μερῶν τοῦ λόγου διὰ τῆς ἐνώσεως τοῦ τόνου τὸ μοναδικὸν τῆς λέξεως ὑπαγορεύει, τουτέστι τὸ ἐν μέρος λόγου εἶναι, ἢ διὰ τῆς μονῆς τῆς καθ’

ἕκαστον μόριον τὸ δισσὸν ἐμφαίνει τῶν λέξεων. Τὸ γὰρ Διὸς κόρος παροξυνόμενον μὲν τὴν γενικὴν ἔχει ἰδίᾳ νοουμένην, ὅμοιον ὃν τῷ Διὸς υἱός, προπαροξυνόμενον δὲ ὁμοιόν ἐστι τῷ Διόγνητος, Διόδοτος. [...] Τὸ δὲ καταγραφῶ εἶτε δύο μέρη λόγου ἐστὶν εἶτε καὶ ἓν, οὐκ ἐνδείκνυται διὰ τῆς τάσεως. Καὶ τὰ τοῦτοις ὅμοια, τὸ ἀποίκου, καταφέροντος, ἅπαντα τὰ τοιαῦτα, τῆς αὐτῆς ἔχεται ἀμφιβολίας.

With most words the unitary nature of a [compound] word, i.e. that it is just one word (*meros logou*), is shown by its single accent, whereas the fact that two separate accents remain on the individual words (*morion*) of a phrase shows that there are two words. The expression *Diòs kóros* ('Son of Zeus' or 'one of the twins Castor and Pollux') when accented with an acute-on-the-penult (*paroxunetai*) conveys the genitive relationships [i.e. that *Diòs* is a genitive modifying *kóros*], parallel to *Diòs huiós* ('Son of Zeus'), but if accented only with an acute-on-the-antepenult (*proparoxunetai*) [i.e. *Diósokoros*], it is a compound, similar to *Diógnētos* or *Diódotos* [proper names, etymologically 'Zeus-born' and 'Zeus-given']. [...] But *katagrāphō* ('I write down', 'I list') [for instance], does not indicate by its accent whether it is two words or one [since *katà grāphō* is phonetically identical with *katagrāphō*, the grave accent having the same value as no accent]. And other words of this sort, e.g. *apoíkou* ('of a colonist' or *ap'óikou* 'from home'), *kataphérontos* ('of a down-bringer' or *katà phérontos* 'concerning a bearer') and the rest suffer from the same ambiguity (*amphibolia*).

As we can see, the occurrence of a single accent is presented here as a necessary, but not sufficient, factor to consider a given structure a synthetic one. In other words, all compounds (synthetic structures) must have only one accent, but not all structures which have one accent must be synthetic ones. The situation in which a structure with one accent is not synthetic but parathetic in nature refers to expressions whose first element is an adverb or a preposition and the second element is a verbal or nominal form. The reduction of the number of accents to one in such structures results from the possible weakening¹⁹ of the *acute* ccent in the first element (i.e. the change from the *acute* accent to the *grave* accent, when it rests on the final syllable of this element – *κατὰ γράφω*, *κατὰ φέροντος*), or from the possible disappearance (elision) of the final accented vowel in this element (*ἀπ' οἴκου*), whereas their ambiguity, and therefore their possible synthetic nature, results from the common process of grammaticalisation of their first (i.e. adverbial or prepositional) element. This process caused these elements to assume the status of a prefix and thus the entire structures to assume the nature of words (and not phrases), treated by Apollonius as compounds (*suntheseis*).

19 In practice this weakening is close to a complete disappearance.

The second prosodic criterion is the shift of the accent to the beginning of the word, which is peculiar to compounds. This phenomenon is discussed by Apollonius in paragraph 12 of the fourth book of his treatise *On Syntax*. In this paragraph the author considers structures with prepositions and prefixes similar to the ones discussed above, referred to with the cover term *protheseis* 'prepositions'. However, in this case the object of analysis is exclusively combinations of these *protheseis* with nominal forms. Moreover, a criterion of morphological nature is also introduced in this context:

Apollonii Dyscoli *De constructione* 4, 12:

Προτιθέμεναι δὴ [αἱ προθέσεις] τῶν τοῦ λόγου μερῶν ἢ κατὰ σύνθεσιν εἰσιν ἢ κατὰ παράθεσιν. Ἐν μὲν οὖν ταῖς εὐθείαις τῶν πτωτικῶν καὶ ἔτι ταῖς συνυπαρχούσαις κλητικαῖς οὐκ ἔστι τὴν παράθεσιν τῶν προθέσεων ἐπινοῆσαι. Πρόδηλον γὰρ ὅτι τὸ σύνοικος, ἐπίκουρος, σύνδουλος, ὑπέρδουλος, πάροικος, μέτοικος, ἐκδηλος, ἀνάδρομος, περίοπτος, περιφóρητος, σύνθεσιν τὴν τῶν μερῶν ἀνεδέξαντο, οὐ μόνον διὰ τὸν ἀναδραμόντα τόνον κατὰ τὴν σύνθεσιν (ἐπεὶ καὶ τινὰ γε συνεφύλαξε τὴν αὐτὴν τάσιν καὶ οὐ <τῇ> μονῇ τοῦ τόνου ἀπολύεται τῆς συνθέσεως, ὥς ἔχει τὸ περικλυτός, ἀναδρομή, συνοχή, καταμονή, ἄλλα πλεῖστα), ἀλλὰ καὶ ἐκ τοῦ συνυπάρχειν κατὰ πάντα σχηματισμὸν τὴν πρόθεσιν, ὅπερ οὐ παρεπόμενόν ἐστι ταῖς ἐκ παραθέσεως, ὥς ἔχει τὸ κατὰ Κτησιφώντος, ὑπὲρ Ἀριστάρχου, οὐ συμφερόμενα κατὰ πᾶσαν πῶσιν διὰ τῆς αὐτῆς συντάξεως: τὰ γε μὴν προεκκείμενα κατὰ τὴν εὐθεῖαν κατὰ πᾶσαν πῶσιν σύνεστιν.

Prepositions combine with other parts of speech either in compounds or in phrases. In combination with nominatives or vocatives, phrasal construction is ruled out [so such forms must be compounds]. So, obviously, if you see the [nominative] forms *súnoikos* ('fellow-inhabitant'), *epíkouros* ('ally'), *súndoulos* ('fellow-slave'), *hupér-doulos* ('super-slave'), *pároikos* ('neighbour'), *métoikos* ('resident, alien, immigrant'), *ékdēlos* ('conspicuous'), *anádroμος* ('running uphill'), *perióptos* ('conspicuous'), *periphórētos* ('portable'), you know that they exhibit composition of the two parts, not just because of the recessive accent of composition (since some compounds preserve the underlying accent [of the second member] and so, because of the persistence of the accent, their identity as compounds cannot be determined by that test – e.g. *periklutós* ('far-famed'), *anadromé* ('up-shooting'), *sunoché* ('coherence'), *katamoné* ('permanence'), and many more) but also from the continuance of the combination through the whole declension (*schēmatismos*), which is not a property of prepositional phrases like *katà Ktēsiphōntos* ('against Ctesiphon') or *hupér Aristárchou* ('on behalf of Aristarchus'), which cannot be declined in every case while preserving the basic construction. But combinations which occur in the nominative remain the same through all cases [and are compounds].

Thus, unlike the aforementioned single-accent criterion, the shift of accent to the beginning is presented as a sufficient and therefore decisive factor in classifying a structure as synthetic, but not as a necessary one. The lack of such a shift does not preclude compoundhood, because there are structures which do not feature such a shift (*periklutós, anadromé, sunoché, katamoné*) which are nevertheless considered compounds. Here Apollonius makes reference to a morphological criterion which has to do with the distributive properties of the components of a given structure, i.e. their connectivity described on the basis of inflexional categories. Namely, the author proves that both structures such as *σύνδουλος* (with accent shift), and structures like such as *περικλυτός* (without accent shift), are compounds, for the *protheseis* which occur in them, i.e. *συν* and *περι* in the aforementioned examples respectively, may combine with all inflexional forms of the nominal components, i.e. they may form structures with the nominal component not only in the nominative case (*σύνδουλος, περικλυτός*), but also in the genitive (*συνδούλου, περικλυτοῦ*), the dative (*συνδούλῳ, περικλυτῷ*) or in the accusative (*σύνδολον, περικλυτόν*). This makes (synthetic) combinations of this kind (i.e. compounds) different from (parathetical) structures (i.e. prepositional phrases) such as *κατὰ Κτησιφῶντος* or *ὑπὲρ Ἀριστάρχου*, in which the *prothesis* cannot combine with all inflexional forms of the nominal component.²⁰ The nominative and the vocative cases are also excluded in such a context; therefore, the connectibility of the *prothesis* with the nominative case amounts to its connectibility with all inflexional forms of the nominal component and thereby constitutes a premise to recognise the structure consisting of a *prothesis* and of a nominal component in the nominative case (i.e. a structure such as *σύνδουλος* or *περικλυτός*) as a synthetic one (i.e. as a one-word compound). In other words, the lack of distributive restrictions on the component constituted by the *prothesis* (i.e. its co-occurrence with nominal forms in the nominative case and in all oblique cases) enables us to recognise a given structure as a synthetic one (a compound), whereas if the *prothesis* may only be accompanied by one or a few oblique cases of the nominal component a given structure has to be considered a parathetical one (an analytic, two-word structure).

In consequence, the aforementioned morphological criterion allows one to distinguish synthetic structures (i.e. compounds) from parathetical ones (i.e. two-word phrases) in a less ambiguous way than in the case of the prosodic (accentual)

20 In the former example the nominal component may occur only in the genitive or in the accusative, whereas in the latter – exclusively in the genitive.

criteria which were discussed previously, and it is indeed appropriate for structures to which Apollonius applied it. However, it is not universal, for not every structure which is ambiguous with respect to the distinction between compounds and phrases contains a *prothesis*, and, on the other hand, not every structure which does contain a *prothesis* features a nominal component. Therefore, in connection to these Apollonius' discourse mentions yet another morphological criterion, namely the presence or absence of formal changes at the boundary between the components of a structure as far as inflexion is concerned. This criterion is invoked exactly in the case of combinations of a *prothesis* and a verb, such as *καταγράφω* ('I write down'), which, according to the grammarian's firm assertion, are always synthetic in nature, i.e. they always constitute compounds (4, 32). This claim is not self-evident and demands special justification, for Apollonius generally accepts the view that "no kind of compound word allows any change at the point of juncture, whereas in phrases sometimes [the first word] may be varied".²¹ The veracity of this statement is allegedly confirmed, on the one hand, by structures such as *λεοντόφωνος* 'lion-voiced', *χειρογραφῶ* 'I hand-write', *κερασφόρος* 'horn-wearing', *Ἀστυάναξ* 'City-king', which are indeed compounds and therefore "no matter how you change the inflection, there is never any change at the compound boundary",²² and on the other hand, by structures such as *Νέα πόλις* 'New City (Naples)', *ἀγαθὸς δαίμων* 'good spirit', *Ἀρείος πάγος* 'Hill of Ares (Areopagus)', which, as "real phrases, do allow inflection at the boundary",²³ e.g. in the genitive: *Νέας πόλεως*, *ἀγαθοῦ δαίμονος*, *Ἀρείου πάγου*. Consequently, the point is that the peculiar property of compounds is that they open only one slot for (a string of) inflexional morphemes at the end of the whole structure, whereas the aforementioned phrases combining an adjective and a noun in a relation of concord with each other, open two such slots, one of which is located at the end of the adjective, and therefore just at the boundary between the two components. Yet, the past tense forms of (prefixed) verbs such as *καταγράφω* ('I write down') assume (as is the case with all other verbs) an augment located before the verbal stem, e.g. *κατέγραψα* ('I wrote down'), and so the change occurs right at the boundary between the two components of the structure, which could suggest that it more likely has the status of a phrase

21 Cf. 4, 33: *Τὰ ὅπως δὴ ποτε συντεθέντα τῶν μερῶν τοῦ λόγου, καθ' ὃ μέρος ἦνῳται, ἀμετάθετά ἐστιν, τὰ γε μὴν παρακείμενα διάφορον ἔσθ' ὅτε τὴν παράθεσιν ποιεῖται.*

22 Cf. 4, 33: *οὐ γὰρ δὴ γε ἐπὶ τούτων κατὰ τὰς διαφόρους κλίσεις τὰ τῆς συναφείας τῶν λέξεων ποτε μετατίθεται.*

23 Cf. 4, 34: *Τὰ γε μὴν ἐν παραθέσει ὄντα ἔχει τὸ καὶ μετατίθεσθαι.*

(*parathesis*) instead of a compound (*sunthesis*). However, Apollonius defends the synthetic nature of such words by writing the following:

Apollonii Dyscoli *De constructione* 4, 40–41:

Οὐκ οἰητέον κεκλίσθαι τὰ ἀπὸ προθέσεως ἀρχόμενα κατὰ τοὺς παρῳχημένους χρόνους, συντεθεῖσθαι γε μὴν κατὰ τὴν ἐκάστου διαφοράν. ὥ γὰρ λόγῳ παρὰ τὸ γράφω ἐγένετο καταγράφω, τούτῳ καὶ παρὰ τὸ ἔγραψα τὸ κατέγραψα. [...] Τούτου δὲ ἀπόδειξις ἰκανωτάτῃ γένοιτο τὸ καὶ παρῳχημένους ἰδίᾳ ποτὲ συντεθεῖσθαι μὴ ὄντων ἐνεστῶτων, καὶ ἔτι μέλλοντας καὶ ἐνεστῶτας οὐκ ὄντων παρῳχημένων· ὅπερ εἰ παρείπετο τὸ ἐξ ἐνεστῶτος ἄρχεσθαι τὰς συνθέσεις καὶ μετῖναι ἐπὶ τοὺς παρῳχημένους, παρείπετο ἂν τὸ μὴ ἰδίᾳ συντεθεῖσθαι παρῳχημένων χωρὶς τῆς κατὰ τὸν ἐνεστῶτα συνθέσεως, κατέφαγόν φαμεν οὐδεμιᾶς οὔσης ὑπομνήσεως τοῦ ἐνεστῶτος, καὶ ἔτι κατοίσω οὐκ οὔσης χρήσεως τῆς κατὰ τὸν ἐνεστῶτα, οὐδὲ μὴν τῆς κατὰ τὸν παρῳχημένον· καὶ ἔτι κατὰ τὸν ἐνεστῶτα ἀπειμι φαμεν οὐκ ὄντων προδήλων τῶν παρῳχημένων. ἰδίᾳ ἄρα οἰητέον ἕκαστον χρόνον τὴν σύνθεσιν ἀναδεδέχθαι, καθὼς ἕκαστος ῥητὸς ὧν οὐκ ἐν ἅπαντι διαφόρῳ χρόνῳ σύνθεσιν ἰδίαν ἀπηνέγκατο, οὐκ ἀναμείνας τὴν ἐξ ἐνεστῶτος γενομένην σύνθεσιν.

You shouldn't imagine that past-tense compound forms are inflected from present compounds, but realize rather that each tense is separately made by compounding from the simplex tense. So just as *katagraphō* is made from *graphō*, so *kategrapsa* is made by compounding from *egrapsa* [and not by inflection from *katagraphō*]. [...] The best proof of this is probably the fact that compound aorists (and perfects) exist without corresponding presents, and also futures and presents without corresponding aorists (or perfects). But if it was proper for all compounds to start with presents and then derive aorists (and perfects) from them, there couldn't properly be any compound aorist (or perfect) without a corresponding compound present. We say *katephagon* ('I devoured', *kata* + *ephagon* 'I ate', aorist) although there is no suggestion of a corresponding present [from the same stem], and *katoisō* ('I will bring down' from *kata* + *oisō* 'I will bring') although there is no present or aorist either in use from this stem. And besides that, there is a present *apeimi* ('I am absent') without any obvious corresponding aorist (or perfect). So we must agree that each tense-system accepts composition independently, since not every verb is usable in every different tense system, and so [non-presents] must be independently compounded, without waiting for an initial compounding of the present.

As can be seen, Apollonius based his argument on the relative formal independence of temporal(-aspectual) formations of a verb in the Greek language by making reference to examples of verbs whose paradigms are suppletive. Thus he restricted verbal inflexion to the formal variance within a given, individual temporal-aspectual value,

which enabled him to demonstrate the lack of changes at the boundary between the *prothesis* and the verbal component and to defend his thesis about the synthetic nature of such structures. Moreover, this restricted understanding of inflexion does not make irrelevant the aforementioned distributive criterion, for within the limits of such a narrowly defined paradigm the connectibility of the *prothesis* with a verbal component remains unrestricted (κατέγραψα, κατέγραψας, κατέγραψε, etc.), in a similar way as the distribution of the *prothesis* in its synthetic combination with a nominal component remains unlimited within the framework of declensional inflexion (σύννοικος, συνοίκου, συνοίκω, etc.).

The third type of criterion to which Apollonius refers in order to distinguish synthetic structures (i.e. compounds) from parathetical structures (i.e. phrases), is – as we have mentioned before – morphological and syntactic in nature. To be more precise, it is based on the linear order of components of the structure in cases when the structure is accompanied by an article. Apollonius writes the following:

Apollonii Dyscoli *De constructione* 4, 13:

Ἀλλὰ μὴν ἔτι κάκ τῆς τοῦ ἄρθρου παραθέσεως. πρωτευούση γὰρ τῇ προθέσει κατὰ παράθεσιν παραχωρεῖ τῆς προθέσεως, μετιὸν ἔφ' ὃ συνήρτηται· οὐ μὴν ἦν σύνθεσις ἧ, εἴγε μέρος ὀνόματος γενομένη ἔξει προκειμενον τὸ καλούμενον προτακτικὸν ἄρθρον τῶν ὀνομάτων. τοῦ μὲν προτέρου περὶ Ἀριστάρχου – περὶ τοῦ Ἀριστάρχου, κατὰ Κτησιφώντος – κατὰ τοῦ Κτησιφώντος, περὶ στεφάνου – περὶ τοῦ στεφάνου, τοῦ δὲ δευτέρου ὁ περικλυτός, ὁ σύνδουλος, ὁ μέτοικος.

We can also judge by inserting the definite article. When the article is added, it yields first position to the preposition if the construction is a phrase, and follows that on which it depends. But if the expression is a compound, this does not happen, since the preposition here is a part of the [compound] noun and so will have before it the so-called prepositive article. Examples of the phrase: *peri Aristarchou* – *peri tou Aristarchou* ('about Aristarchus'; addition of the article makes no translatable difference), *kata Ktēsiphōntos* – *kata tou Ktēsiphōntos* ('against Ctesiphon'), *peri stephanou* – *peri tou stephanou* ('on crown'). Examples of the compound case: *ho periklutos* ('the renowned man'; never **peri ho klutos*), *ho sundoulos* ('the fellow-slave'), *ho metoikos* ('the resident alien').

We may therefore state that, on the one hand, since it is based on the way a given structure combines with the article, this criterion is syntactic in nature, and on the other, given that its essence involves linear (dis)continuity of the structure, i.e. its (in)divisibility into segments which may be separated by an additional element (i.e. the article), it takes on also a morphological character. It is worthwhile to

add that in the further part of the above quoted paragraph Apollonius also draws attention to the fact that some of the structures discussed by him may be ambivalent as far as their status as a compound or a phrase is concerned, i.e. they may accept both a preposed article and one located between the two components. However, at the same time he notices that this ambivalence involves also a certain semantic ambiguity and that the latter can be resolved by the insertion of the article, what resolves at the same time the question of the synthetic or parathetical status of a given structure. The grammarian writes the following:

Apollonii Dyscoli *De constructione* 4, 13:

“Ἐνεκα τοῦ τοιούτου καὶ τὰ ὑπ’ ἀμφιβολίαν πίπτοντα ἐκλύεται τοῦ ἀμφιβόλου προσλαβόντα τὰ ἄρθρα· διοίσει γὰρ τὸ παρὰ τοῦ νόμου, παρὰ τοῦ φέροντος τῶν τοιούτων τοῦ παραφέροντος, τοῦ παρανόμου.

Because of this, even potentially ambiguous sequences may have their ambiguity resolved by the insertion of the article. So there will be a distinction between *para tou nomou* ('from beside the law (inscribed on a stone stele)') or *para tou pherontos* ('from the one bringing') etc. and *tou parapherontos* ('of the one serving') and *tou paranomou* ('of the illegality').

Therefore, as a matter of fact, in such cases it is the meaning, emphasised by the addition of the article, that determines the (synthetic or parathetical) status of a given structure.

Meaning also constitutes an important factor in the criterion which the grammarian in question applied in the interpretation of the status of the causal conjunction *διότι* (*dioti*) 'because'. Assuming that the first component of this structure is the *prothesis* *διά* (*dia*), he inquired whether *διότι* as a whole is a parathetical or a synthetic structure and whether the second component of this structure is the indeclinable conjunction *ὅτι* (*hoti*), or a declinable word. His answer is that it is a parathetical combination of *διά* with a declinable word and he substantiated his argument in the following way:

Apollonii Dyscoli *De constructione* 4, 29:

Ἀλλὰ καὶ τὰ παρεπόμενα συνομολογεῖ· πρῶτον [...] τὸ τὴν διά μηδέποτε ἐν συνθέσει αἰτιολογικῶς παραλαμβάνεσθαι, ὡς ἐν τῷ διάδρομος ἢ διατρέχω, ἐν δὲ παραθέσει πτώσεως αἰτιατικῆς, διὰ Τρύφωνα, διὰ τὴν ἡμέραν. καὶ ἐντεῦθεν ὁμολογεῖται ὡς οὐδὲ τὸ ὅτι σύνδεσμός ἐστιν, ἀλλὰ πτωτικὸν μόριον τῆς αἰτιατικῆς πτώσεως, εἶγε ἐδείχθη ὅτι οὐδὲ ἐν παραθέσει ἐστὶν ἡ εὐθεῖα τῶν προθέσεων καὶ ὡς ἐν εὐθείᾳ ἢ διὰ σύνδεσμικὴν οὐκ ἐπέχει σύνταξιν.

But [this analysis] is confirmed by the properties [of *diá*]. In the first place, *diá* never has the causal sense in compounds, e.g. *diadromos* ('passage') or *diatrechō* ('I run across'), but only in phrases with the accusative case, *diá Truphōna* ('because of Tryphon'), *diá tēn hēmeran* ('because of the day'). And so it is also clear that the *hoti* [in *dihoti*] cannot be the conjunction *hoti* ('because'), but must be a nominal in the accusative case, since we have already shown that the nominative is never governed by a preposition and that when there is a compound of *diá* in the nominative, the *diá* can't have the conjunctive use.²⁴

So, according to Apollonius the causal meaning of the structure as a whole determines the meaning which the component *διὰ* assumes within it and this, in turn, determines the prepositional (and not prefixal) status of this component and the parathetical nature of relations which link it with the second component of the structure (i.e. *ὅτι*) and finally the specific grammatical properties of this second component (i.e. the fact that it occurs in the accusative).²⁵ In the subsequent paragraph the grammarian considers the essence of this declinable (*πτωτικόν*, *ptōtikon*) *ὅτι* which occurs in the accusative and states that it is not a single word but a parathetical combination of the pronouns *ὅ* (*ho*) and *τί* (*ti*) in the neuter gender, to which *ὅς τις* (*hos tis*) 'who(ever)' corresponds in the masculine gender in the nominative. Therefore, at the end he presents the following conclusion:

Apollonii Dyscoli *De constructione* 4, 30:

Προφανές γενήσεται ὡς εἴη ἐν τρισὶ μέρεσι λόγου. προθέσεως τῆς διὰ κατὰ συνδεσμικὴν σύνταξιν φερομένης ἐπ' αἰτιατικὴν καὶ παραλλήλων δύο πτωτικῶν, τοῦ ὅ καὶ τοῦ τί, πτώσεως ὄντων οὐκ ἄλλης ἢ αἰτιατικῆς.

So it's clear that [*dihoti*] consists of three words, first preposition *diá* in its causal sense which governs the accusative, and then two parallel (i.e. appositional) nominals, *ho* ('which') and *ti* ('something'), in what can only be the accusative case.

One must admit that Apollonius' sophisticated line of reasoning about the conjunction *διότι* is consistent with the argumentation that he used in his discussion of other structures of a (potentially) doubtful grammatical status. On the other hand, it should be pointed out that the causal sense of the preposition *διὰ* in a construction with nominal forms in the accusative, and therefore the basic argument which is supposed to support the parathetical nature of the conjunction *διότι*,

24 Which should be understood that it cannot have a causal meaning.

25 See also Bednarski (1994: 29).

implies the casual nature of the content expressed by these nominal forms in the accusative, and that, of course, is not included in the grammaticalised semantics of this conjunction. However, in general the rules propounded by Apollonius for the classification of linguistic structures, that is for distinguishing words from phrases, without doubt deserve to be appreciated due to their ground-breaking nature and the application of exclusively intralinguistic criteria. A greater amount of precision in this respect was not achieved certainly due to the lack of awareness of the difference between words as textual units and words as grammatical and lexical units. However, it would be unfair to blame a grammarian who lived in 2nd century AD for ignorance in this respect, especially considering the fact that we owe his scholarly curiosity, intelligence and analytical sense an excellent initial contribution to the on-going discussion about the concept and definition of the word in linguistics.

Summing up the entire overview of texts which is presented above one should say that it demonstrates above all the fact that in the Greek reflection about language the analysis of the compoundhood of words was multifaceted and was conducted from many perspectives. For Aristotle the basic problem was associated with the statement if and in what way the compoundhood of nouns influenced their functional semantics, perceived mainly according to logical criteria. The *Tekhne grammatike* attributed to Dionysius Thrax presents compoundhood from the point of view of its status as one of the grammatical properties of words and its relationship with the remaining properties which constitute the grammatical characteristics of words, especially with the inflexional ones. Finally, Apollonius Dyscolus made an attempt at indicating the criteria which would enable him to distinguish compoundhood from the syntactic complexity, and this, in turn, involved the necessity of establishing the basic definitional properties of the word. Thus compoundhood marked its presence in Greek linguistics as a phenomenon which was analysed from the perspective of semantics, morphology and syntax.

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